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10/828,977	04/21/2004	Hiroshi Kanto	9683/188	5406

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EXAMINER

FOX, BRYAN J

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/828,977

Applicant(s)

KANTO ET AL.

Examiner

Bryan J. Fox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-17 and 19-27 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5, 7, 8, 11-13, 19, 22 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kransmo in view of Julka et al (US 20040203780A1).

Regarding claim 5, Kransmo discloses a system with a mobile station that may comprise a dual mode mobile terminal, capable of being used in both 3G and 2G networks (see column 3, lines 62-67), which reads on the claimed, "communication unit operable to enable communication over a first mobile communication network and a second mobile communication network." The control channel information is provided regarding a 2G communication system within a downlink control channel of the 3G communication system to the wireless terminal (see column 5, lines 21-36) and the MS takes measurements of the carrier channels such as signal strength, and also

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determines if the correct cell has been selected (see column 4, lines 20-29), which reads on the claimed, "said control unit...is further operable to determine if it is possible to register to said first mobile communication network, on the basis of a registration possibility indication receivable from said second mobile communication network with said communication unit." Kransmo fails to disclose a control unit operable...to determine if said mobile terminal is currently engaged in a voice communication over said second mobile communication network...wherein said control unit is further operable to attempt to register to said first mobile communication network only when said voice communication is not presently in progress.

In a similar field of endeavor, Julka et al disclose a system where when MS is in a hard handoff and engaged in an active voice call the BS sends false network identification information to the MS. Once the call terminates, MS resumes monitoring the overhead channels and obtains the true network information for the target base stations. If the stored information does not match the false information, the MS re-registers with the network (see paragraphs 49-50 and figure 5), which reads on the claimed, "control unit operable...to determine if said mobile terminal is currently engaged in a voice communication over said second mobile communication network," and, "said control unit is further operable to attempt to register to said first mobile communication network only when said voice communication is not presently in progress."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Julka et al to include the above registration after

the termination of a voice call in order to ensure the HLR information for the mobile station is properly updated as suggested by Julka et al (see paragraph 17).

Regarding claim 7, Kransmo fails to expressly disclose said control unit is operable to attempt to register to said first mobile communication network for voice communication even when said communication unit is currently engaged in a data communication over said second mobile communication network.

In a similar field of endeavor, Julka et al disclose if the MS is not in an active voice call, the handoff is performed using established procedures (see paragraph 46), which reads on the claimed, "said communication unit is operable to communication voice communication or data communication, and said control unit is operable to attempt to register to said first mobile communication network for voice communication even when said communication unit is currently engaged in a data communication over said second mobile communication network."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Julka et al to include the above handoff during data communication in order to conform to established practices as suggested by Julka et al (see paragraphs 8-10).

Regarding claim 8, the combination of Kransmo and Julka et al discloses The control channel information is provided regarding a 2G communication system within a downlink control channel of the 3G communication system to the wireless terminal (see column 5, lines 21-36) and the MS takes measurements of the carrier channels such as signal strength, and also determines if the correct cell has been selected (see column 4,

lines 20-29), which reads on the claimed, "said registration possibility information is only an indication to initiate communication with said first mobile communication network."

Regarding claim 11, Kransmo fails to expressly disclose said first communication network and said second mobile communication network are divided into a plurality of registration areas, and a changed location is a change from one registration area to another registration area.

In a similar field of endeavor, Julka et al disclose the use of network identification, system identification and packet zone identification values to divides geographic areas into service areas (see paragraphs 5-6), and a updates its NID, SID and PZID as it moves around (see paragraphs 12-14), which reads on the claimed, "said first communication network and said second mobile communication network are divided into a plurality of registration areas, and a changed location is a change from one registration area to another registration area."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Julka et al to include the above zones in order to route data to the MS as suggested by Julka et al (see paragraph 8).

Regarding claim 12, Kransmo fails to expressly disclose said changed location is a change from a current radio area to another radio area, both of which are included in one of said first mobile communication network or said second communication network.

In a similar field of endeavor, Julka et al disclose the use of network identification, system identification and packet zone identification values to divides geographic areas into service areas (see paragraphs 5-6), and a updates its NID, SID

and PZID as it moves around (see paragraphs 12-14), which reads on the claimed, "said changed location is a change from a current radio area to another radio area, both of which are included in one of said first mobile communication network or said second communication network."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Julka et al to include the above zones in order to route data to the MS as suggested by Julka et al (see paragraph 8).

Regarding claim 13, Kransmo fails to expressly disclose said changed location is a change from a current sector to a new sector within a radio area, wherein said radio area is included in at least one of said first mobile communication network or said second mobile communication network.

In a similar field of endeavor, Julka et al disclose the use of network identification, system identification and packet zone identification values to divides geographic areas into service areas (see paragraphs 5-6), and a updates its NID, SID and PZID as it moves around (see paragraphs 12-14), which reads on the claimed, "said changed location is a change from a current sector to a new sector within a radio area, wherein said radio area is included in at least one of said first mobile communication network or said second mobile communication network."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Julka et al to include the above zones in order to route data to the MS as suggested by Julka et al (see paragraph 8).

Regarding claim 19, Kransmo discloses a system with a mobile station that may comprise a dual mode mobile terminal, capable of being used in both 3G and 2G networks (see column 3, lines 62-67), which reads on the claimed, "providing a mobile terminal operable to communicate over a first mobile communication network and a second mobile communication network." The control channel information is provided regarding a 2G communication system within a downlink control channel of the 3G communication system to the wireless terminal (see column 5, lines 21-36) and the MS takes measurements of the carrier channels such as signal strength, and also determines if the correct cell has been selected (see column 4, lines 20-29), which reads on the claimed, "determining in said mobile terminal...whether it is possible to register to said first mobile communication network on the basis of registration possibility information received from said second mobile communication network," and, "attempting to register said mobile terminal to said first mobile communication network." Kransmo fails to disclose determining in said mobile terminal if said mobile terminal is currently engaged in a voice communication over said second mobile communication network and determining in said mobile terminal if said mobile terminal has changed location and transmitting from said mobile terminal to said first mobile communication network, a notification including an identifier only when voice communication is determined to not presently be in progress.

In a similar field of endeavor, Julka et al disclose a system where when MS is in a hard handoff and engaged in an active voice call the BS sends false network identification information to the MS. Once the call terminates, MS resumes monitoring

the overhead channels and obtains the true network information for the target base stations. If the stored information does not match the false information, the MS re-registers with the network (see paragraphs 49-50 and figure 5), which reads on the claimed, "determining in said mobile terminal if said mobile terminal is currently engaged in a voice communication over said second mobile communication network," and, "transmitting from said mobile terminal to said first mobile communication network, a notification including an identifier only when voice communication is determined to not presently be in progress, and when it is determined that it is possible to register to said first mobile communication network," wherein the re-registration attempt reads on the notification including an identifier. Further, Julka et al disclose the use of network identification, system identification and packet zone identification values to divide geographic areas into service areas (see paragraphs 5-6), and a updates its NID, SID and PZID as it moves around (see paragraphs 12-14), which reads on the claimed, "determining in said mobile terminal if said mobile terminal has changed location."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Julka et al to include the above registration after the termination of a voice call in order to ensure the HLR information for the mobile station is properly updated as suggested by Julka et al (see paragraph 17).

Regarding claim 22, Kransmo fails to expressly disclose attempting to register said mobile terminal to said first mobile communication network comprises attempting to register for voice communication; and engaging in a data communication over said second mobile communication network.

In a similar field of endeavor, Julka et al disclose if the MS is not in an active voice call, the handoff is performed using established procedures (see paragraph 46), which reads on the claimed, "said mobile terminal is operable to communicate voice communication or data communication, and attempting to register said mobile terminal to said first mobile communication network comprises attempting to register for voice communication; and engaging in a data communication over said second mobile communication network."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Julka et al to include the above handoff during data communication in order to conform to established practices as suggested by Julka et al (see paragraphs 8-10).

Regarding claim 25, Kransmo fails to expressly disclose determining in said mobile terminal if said mobile terminal has changed location comprises determining if said mobile terminal has moved from one registration area to another registration area.

In a similar field of endeavor, Julka et al disclose the use of network identification, system identification and packet zone identification values to divides geographic areas into service areas (see paragraphs 5-6), and a updates its NID, SID and PZID as it moves around (see paragraphs 12-14), which reads on the claimed, "determining in said mobile terminal if said mobile terminal has changed location comprises determining if said mobile terminal has moved from one registration area to another registration area."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Julka et al to include the above zones in order to route data to the MS as suggested by Julka et al (see paragraph 8).

Regarding claim 26, Kransmo fails to expressly disclose determining in said mobile terminal if said mobile terminal has changed location comprises determining if said mobile terminal has moved from one radio area to another radio area.

In a similar field of endeavor, Julka et al disclose the use of network identification, system identification and packet zone identification values to divides geographic areas into service areas (see paragraphs 5-6), and a updates its NID, SID and PZID as it moves around (see paragraphs 12-14), which reads on the claimed, "determining in said mobile terminal if said mobile terminal has changed location comprises determining if said mobile terminal has moved from one radio area to another radio area."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Julka et al to include the above zones in order to route data to the MS as suggested by Julka et al (see paragraph 8).

Regarding claim 27, Kransmo fails to expressly disclose determining in said mobile terminal if said mobile terminal has changed location comprises determining if said mobile terminal has moved from one sector to another sector within a radio area.

In a similar field of endeavor, Julka et al disclose the use of network identification, system identification and packet zone identification values to divides geographic areas into service areas (see paragraphs 5-6), and a updates its NID, SID

and PZID as it moves around (see paragraphs 12-14), which reads on the claimed, "determining in said mobile terminal if said mobile terminal has changed location comprises determining if said mobile terminal has moved from one sector to another sector within a radio area."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Julka et al to include the above zones in order to route data to the MS as suggested by Julka et al (see paragraph 8).

Claims 6 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kransmo in view of Julka et al as applied to claims 5 and 19 above, and further in view of Hicks (US006493552B1).

Regarding claim 6, the combination of Kransmo and Julka et al fails to disclose said registration possibility indication receivable with said communication unit includes timing information indicative of a maximum number of times registration to said first mobile communication network is to be attempted, and said control unit is operable to attempt to register to said first mobile communication network on the basis of said timing information.

In a similar field of endeavor, Hicks discloses a base station that transmits certain registration parameters to the mobile station (see column 4, lines 54-67), and a maximum number of registration attempts (see column 5, lines 5-22).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kransmo and Julka et al with Hicks to include

the maximum number of registration attempts sent to the mobile station in order to save power.

Regarding claim 21, the combination of Kransmo and Julka et al fails to disclose said registration possibility indication receivable with said communication unit includes timing information indicative of a maximum number of times registration to said first mobile communication network is to be attempted, and said control unit is operable to attempt to register to said first mobile communication network on the basis of said timing information.

In a similar field of endeavor, Hicks discloses a base station that transmits certain registration parameters to the mobile station (see column 4, lines 54-67), and a maximum number of registration attempts (see column 5, lines 5-22).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kransmo and Julka et al with Hicks to include the maximum number of registration attempts sent to the mobile station in order to save power.

Claims 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kransmo in view of Julka et al as applied to claims 5 and 19 above, and further in view of Tayloe et al (US005918175A).

Regarding claim 9, the combination of Kransmo and Julka et al fails to disclose said mobile terminal is only registerable to said first mobile communication network when a user of said mobile terminal is an authorized user.

In a similar field of endeavor, Tayloe et al disclose the use of authentication (see column 11, lines 44-61).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kransmo and Julka et al with Tayloe et al to include the above authentication in order to only permit allowed users as suggested by Tayloe et al (see column 11, lines 44-61).

Regarding claim 23, the combination of Kransmo and Julka et al fails to disclose said mobile terminal is only registerable to said first mobile communication network when a user of said mobile terminal is an authorized user.

In a similar field of endeavor, Tayloe et al disclose the use of authentication (see column 11, lines 44-61).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kransmo and Julka et al with Tayloe et al to include the above authentication in order to only permit allowed users as suggested by Tayloe et al (see column 11, lines 44-61).

Claims 10 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kransmo in view of Julka et al as applied to claims 5 and 19 above, and further in view of Gustavsson et al (US 20020068564A1).

Regarding claim 10, the combination of Kransmo and Julka et al fails to disclose said registration possibility information comprises a limitation of registration with the first

mobile communication network for only one of voice communication and data communication.

In a similar field of endeavor, Gustavsson et al disclose a voice only and a data only mode (see paragraph 46)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kransmo and Julka et al with Gustavsson et al to include the above voice only or data only mode in order to avoid unnecessary signaling as suggested by Gustavsson et al (see paragraph 45).

Regarding claim 24, the combination of Kransmo and Julka et al fails to disclose said registration possibility information comprises a limitation of registration with the first mobile communication network for only one of voice communication and data communication.

In a similar field of endeavor, Gustavsson et al disclose a voice only and a data only mode (see paragraph 46)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kransmo and Julka et al with Gustavsson et al to include the above voice only or data only mode in order to avoid unnecessary signaling as suggested by Gustavsson et al (see paragraph 45).

Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kransmo in view of Lamb et al (US006697620B1).

Regarding claim 14, Kransmo discloses a system with a mobile station that may comprise a dual mode mobile terminal, capable of being used in both 3G and 2G networks (see column 3, lines 62-67), which reads on the claimed, "first mobile communication network that includes a first location management device, wherein said first location management device is operable to manage location information of mobile terminals registered to said first mobile communication network; a second mobile communication network that includes a second location management device and a base station, said second location management device operable to manage location information of mobile terminals registered to said second mobile communication network." The control channel information is provided regarding a 2G communication system within a downlink control channel of the 3G communication system to the wireless terminal (see column 5, lines 21-36) and the MS takes measurements of the carrier channels such as signal strength, and also determines if the correct cell has been selected (see column 4, lines 20-29), which reads on the claimed, "said base station positioned within said first mobile communication network, wherein said base station is operable to transmit for receipt by a mobile terminal registration possibility information indicating that it is possible to register to said first mobile communication network." Kransmo fails to disclose a management device coupled with said first mobile communication network and said second mobile communication network, said management device operable to store location registration data correlated with a mobile terminal identifier for each of said mobile terminals, said management device operable to selectively update said location registration data in response to receipt from each of

said mobile terminals of a notification of a current registration of a respective mobile terminal to at least one of said first mobile communication network or said second mobile communication network.

In a similar field of endeavor, Lamb et al disclose a universal location service register that has access to a database that stores information about subscribers to the networks serviced by the ULSR, where the information in the database enables the ULSR to provide mobility management and authentication functions for all networks that the ULSR supports. When a terminal roams, it sends a registration request to the new network, and the MSC in the new network notifies the ULSR that the mobile phone has requested registration. If the terminal is authorized, the ULSR updates the database to reflect that the terminal is currently registered in the new network (see column 4, line 33 – column 5, line 12), which reads on the claimed, “management device coupled with said first mobile communication network and said second mobile communication network, said management device operable to store location registration data correlated with a mobile terminal identifier for each of said mobile terminals, said management device operable to selectively update said location registration data in response to receipt from each of said mobile terminals of a notification of a current registration of a respective mobile terminal to at least one of said first mobile communication network or said second mobile communication network.”

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Lamb et al to include the above ULSR in order to

eliminate the need for associating each MSC with its own HLR and AuC as suggested by Lamb et al (see column 2, lines 47-63).

Regarding claim 15, Kransmo fails to disclose said management device is operable to store said location registration data correlated with a mobile terminal identifier in a management table.

In a similar field of endeavor, Lamb et al disclose a ULSR that stores the location at which the user is currently registered (see column 4, lines 33-44), which reads on the claimed, "said management device is operable to store said location registration data correlated with a mobile terminal identifier in a management table."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Lamb et al to include the above ULSR in order to eliminate the need for associating each MSC with its own HLR and AuC as suggested by Lamb et al (see column 2, lines 47-63).

Regarding claim 16, Kransmo fails to disclose said management device is operable, in response to a request related to a specified mobile terminal, to specify a mobile communication network to which said specified mobile terminal is registered based on said stored location registration data correlated with a mobile terminal identifier.

In a similar field of endeavor, Lamb et al disclose when a network receives an incoming call for a user, the MSC of the home network sends a location request to the ULSR, and the ULSR responds with the routing information of the terminal in the roaming network (see column 7, lines 5-54), which reads on the claimed, "said

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management device is operable, in response to a request related to a specified mobile terminal, to specify a mobile communication network to which said specified mobile terminal is registered based on said stored location registration data correlated with a mobile terminal identifier."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Lamb et al to include the above ULSR in order to eliminate the need for associating each MSC with its own HLR and AuC as suggested by Lamb et al (see column 2, lines 47-63).

Regarding claim 17, Kransmo fails to disclose said management device is operable to receive data from said first mobile communication network when said notification is from a mobile terminal registered with said first mobile communication network, and said management device is operable to receive data from said second mobile communication network when said notification is from a mobile terminal registered with said second mobile communication network.

In a similar field of endeavor, Lamb et al disclose When a terminal roams, it sends a registration request to the new network, and the MSC in the new network notifies the ULSR that the mobile phone has requested registration, which reads on the claimed, "said management device is operable to receive data from said first mobile communication network when said notification is from a mobile terminal registered with said first mobile communication network, and said management device is operable to receive data from said second mobile communication network when said notification is from a mobile terminal registered with said second mobile communication network."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Lamb et al to include the above ULSR in order to eliminate the need for associating each MSC with its own HLR and AuC as suggested by Lamb et al (see column 2, lines 47-63).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kransmo in view of Julka et al as applied to claim 19 above, and further in view of Lamb et al.

Regarding claim 20, the combination of Kransmo and Julka et al fails to disclose receiving in a management device a notification transmitted by said mobile terminal through said first mobile communication network, and storing in said management device data indicating that said mobile terminal is registered to said first mobile communication network, said mobile terminal being specified by an identifier included in said notification.

In a similar field of endeavor, Lamb et al disclose a universal location service register that has access to a database that stores information about subscribers to the networks serviced by the ULSR, where the information in the database enables the ULSR to provide mobility management and authentication functions for all networks that the ULSR supports. When a terminal roams, it sends a registration request to the new network, and the MSC in the new network notifies the ULSR that the mobile phone has requested registration. If the terminal is authorized, the ULSR updates the database to reflect that the terminal is currently registered in the new network (see column 4, line 33

– column 5, line 12), which reads on the claimed, “receiving in a management device a notification transmitted by said mobile terminal through said first mobile communication network, and storing in said management device data indicating that said mobile terminal is registered to said first mobile communication network, said mobile terminal being specified by an identifier included in said notification.”

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kransmo with Lamb et al to include the above ULSR in order to eliminate the need for associating each MSC with its own HLR and AuC as suggested by Lamb et al (see column 2, lines 47-63).

Allowable Subject Matter

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the Applicant's arguments filed in the Pre-Brief Conference Request on September 29, 2006 are persuasive.

Response to Arguments

Applicant's arguments, see Pre-Brief Conference Request, filed September 29, 2006, with respect to the 35 USC 112, first paragraph rejection have been fully

considered and are persuasive. The 35 USC 112, first paragraph rejection of claims 5-13 and 19-27 has been withdrawn.

The Applicant argues the request for registration does not read on the claimed notification of registration. The Examiner respectfully disagrees. The broadest reasonable interpretation in light of the specification of a notification of a current registration reads on the registration processes described by Kransmo and Lamb et al as outlined in the rejection of claim 14 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan J. Fox whose telephone number is (571) 272-7908. The examiner can normally be reached on Monday through Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bryan Fox
January 18, 2007



CHARLES APPIAH
PRIMARY EXAMINER